

SPECIFICATION

[Title of Invention]

Chair-type massage machine

[Technical Field]

[0001]

The present invention relates to a chair-type massage machine that includes a seat part massage mechanism adapted to massage a treatment region from the buttocks to legs of a user sitting on a seat part, and despite including the seat part massage mechanism, can surely store a footrest.

[Background Art]

[0002]

As a chair-type massage machine adapted to, using a mechanical massage mechanism, massage a treatment region of the buttocks of a user sitting on a seating part, there has conventionally been known one as disclosed in Patent Literature 1.

The chair-type massage machine of Patent Literature 1 is formed as a bucket seat type in which a backrest part and a seat part are integrated, and by guiding the massage mechanism along a rack part provided over a wide range from the upper end of the backrest part to the front end of the seat part, can provide treatment to a wide range from the shoulders to the buttocks. That is, the

chair-type massage machine of Patent Literature 1 can give a mechanical massage to a treatment part of the buttocks when moving the massage mechanism to the lower side of the seat part.

[Citation List]

[Patent Literature]

[0003]

[Patent Literature 1]

Japanese Unexamined Patent Publication

JP-A2014-171

[Summary of Invention]

[Technical Problem]

[0004]

Meanwhile, the chair-type massage machine of Patent Literature 1 is provided with a footrest (massage mechanism for legs) for massaging the legs of a user. The footrest is provided at the front of the seat part, and may be impeditive when not used. For this reason, when thinking about storing the footrest part below the seat part, in the chair-type massage machine of Patent Literature 1, a seat part massage mechanism exists at the center of the seat part to interfere with the footrest part, and the storage below the seat part may be difficult.

[0005]

The present invention has been made in consideration of the above-described problem, and intends to provide a chair-type massage machine that, despite employing a massage mechanism capable of mechanically treating a treatment region from the buttocks to the thighs, is rich in functionality capable of storing a footrest part below a seat part.

[Solution to Problem]

[0006]

In order to solve the above problem, the chair-type massage machine of the present invention takes the following technical means.

That is, the chair-type massage machine of the present invention is a chair-type massage machine including: a seat part; a seat part massage mechanism adapted to treat a buttock of a user sitting on the seat part; a seat part guide rail adapted to guide the seat part massage mechanism in a front/back direction; and a footrest part adapted to treat a leg of a user, in which the seat part is configured to be capable of storing the footrest part in a lower inner side of the seat part, and the seat part guide rail points to the back end part of the footrest part in a state of being stored in the lower inner side of the seat part and is formed in a shape that is curved lowering backward.

[0007]

In addition, preferably, it is only necessary that at the back of the seat part, a backrest part on which a user is to recline, a back part massage mechanism adapted to treat the back of a user reclining on the backrest part, and a back part guide rail adapted to guide the back part massage mechanism in an up/down direction are provided, between the back end part of the footrest part in the state of being stored in the lower inner side of the seat part and the lower end part of the back part guide rail, a space is formed, and the seat part guide rail is disposed pointing to the space part.

[0008]

Further, preferably, it is only necessary that: the front surface of the footrest part is provided with a leg insertion part that is opened outward and insertable with a leg of a user, and the leg insertion part is formed with an opening part whose part corresponding to the front end of a foot of a user is opened forward; the footrest part is adapted to be capable of being stored on an inner side of the seat part such that the surface provided with the leg insertion part faces upward and the opening part faces upward; and the footrest part is adapted to be capable of being stored in a lower inner side of the seat part with the seat part guide rail inserted into an inner

side of the leg insertion part and/or into the opening part.

[Advantageous Effects of Invention]

[0009]

The chair-type massage machine of the present invention can surely store the footrest part below the seat part, despite employing the massage mechanism capable of mechanically treating a treatment part from the buttocks to the legs (in particular, thighs).

[Brief Description of Drawings]

[0010]

[Fig. 1]

Fig. 1 is a perspective view illustrating a chair-type massage machine of the present embodiment.

[Fig. 2]

Fig. 2 is a diagram illustrating a seat part massage mechanism provided in the chair-type massage machine of the present embodiment.

[Fig. 3]

Fig. 3 is a diagram illustrating the chair-type massage machine when giving a massage using the seat part massage mechanism with a footrest part brought into a massage attitude.

[Fig. 4]

Fig. 4 is a diagram illustrating the chair-type

massage machine when the footrest part was brought into the massage attitude and then the seat part massage mechanism was stored.

[Fig. 5]

Fig. 5 is a diagram illustrating the chair-type massage machine when the footrest part was brought into a footrest attitude and then the seat part massage mechanism was stored.

[Fig. 6]

Fig. 6 is a diagram illustrating the chair-type massage machine when the footrest part was brought into a storage attitude and then further stored below a seat part.

[Fig. 7]

Fig. 7 is a view illustrating the positional relationship between the footrest part stored and seat part guide rails.

[Description of Embodiments]

[0011]

In the following, an embodiment of the chair-type massage machine 1 of the present invention will be described in detail on the basis of the drawings.

As illustrated in Fig. 1, a chair-type massage machine 1 of the present embodiment includes: a seat part 2 having an area large enough to support the buttocks

of a user from below; a backrest part 3 provided on the back side of the seat part 2; and a footrest part 4 provided on the front side of the seat part 2. Inside the above-described seat part 2, a seat part massage mechanism 5 adapted to give a massage to a treatment region from the buttocks to thighs of a user (hereinafter simply referred to as a treatment region) is provided. Also, inside the backrest part 3, a back part massage mechanism 6 adapted to treat the back of a user reclining on the backrest part 3 is provided.

[0012]

Further, the above-described seat part massage mechanism 5 and back part massage mechanism 6 are both adapted to be capable of being guided in a front/back direction and in an up/down direction using guide rails (seat part guide rails 7 and back part guide rails 8). Still further, the footrest part 4 at the front of the seat part 2 is provided with a foot massage mechanism 9 that is formed in a shape capable of being insertable with the legs of a user and makes it possible to give a massage based on air bags to the inserted legs of a user.

[0013]

In the following, the seat part 2, backrest part 3, footrest part 4, back part massage mechanism 6, and

seat part massage mechanism 5 constituting the chair-type massage machine 1 of the present embodiment will be described.

Note that when describing the chair-type massage machine 1 below, as illustrated in Fig. 1, the description is given with the height direction of the backrest part 3 in an upright state defined as the up/down direction and the directions indicated in Fig. 1 defined as a left/right direction (width direction) and a front/back direction. These directions are ones coincident with an up/down direction, left/right direction, and front/back direction as viewed from a user sitting on the chair-type massage machine 1.

[0014]

As illustrated in Fig. 1 and Fig. 2, the seat part 2 includes a support frame 10 in which square rod-shaped members are combined. Inside the support frame 10, the seat part guide rails 7 enabling the seat part massage mechanism 5 to be moved in the front/back direction are placed. The seat part guide rails 7 are rail members placed along the front/back direction, and enable the seat part massage mechanism 5 to be guided along the laying direction. In addition, although illustration is omitted, above the above-described support frame 10, a cushioning member used when a user sits is provided, and

the seat part massage mechanism 5 and the seat part guide rails 7 are covered with a casing, a sheet, or the like and adapted to prevent foreign matters from entering from outside.

[0015]

The above-described seat part massage mechanism 5 is one that gives a massage to a treatment region of the buttocks of a user sitting on the seat part 2. The seat part massage mechanism 5 is made movable in the front/back direction by the seat part guide rails 7 attached to the support frame 10 of the seat part 2. In addition, the seat part guide rails 7 will be described later in detail.

As illustrated in Fig. 2 to Fig. 6, the seat part massage mechanism 5 includes: a base body 11 made movable by the seat part guide rails 7; a massage body 12 that is attached to the base body 11 and capable of massaging a treatment region of a user sitting on the seat part 2; and damper means 13 disposed between the base body 11 and the massage body 12.

[0016]

Among the members constituting the seat part massage mechanism 5, the massage body 12 includes: a drive part 14 (drive motor) that generates a rotational driving force; and a rotating shaft 15 that is rotationally driven by the rotational driving force generated by the drive

part 14, and the rotating shaft 15 is provided with a pair of left and right massage members 16. That is, the seat part massage mechanism 5 is configured to massage a treatment region using the massage members 16 by converting the rotational driving force of the rotating shaft 15 using a cam to swing the massage members 16 (eccentric boss members) in the left/right direction in a reciprocating manner.

[0017]

Describing specifically while taking the state of Fig. 3 as an example, the drive part 14 constituting the seat part massage mechanism 5 in the present embodiment is configured to include an electric motor that is disposed with a drive shaft 14a facing forward and slightly upward. On the upper side of the drive shaft 14a of the drive part 14, the above-described rotating shaft 15 is disposed in a crossed manner, to which power is transmitted using a worm gear. Also, although illustration is omitted, the rotating shaft 15 is provided with the eccentric boss members rotating together with the rotating shaft 15, massage arms whose base end sides are slidably fitted into inclination cam faces (cam faces circling around shaft centers inclined with respect to the shaft center of the rotating shaft 15) of the eccentric boss members, restriction parts that

restrict the massage arms from rotating together with the eccentric boss members, and the like. That is, the seat part massage mechanism 5 is configured to swing the massage members 16 (eccentric boss members) in the left/right direction by converting the rotational driving force of the rotating shaft 15 by a conversion mechanism using the eccentric boss members, inclination cam faces, restriction pins, and restriction grooves.

[0018]

Note that in the present embodiment described above, the seat part massage mechanism 5 adapted to give a kneading massage using the massage members 16 to a treatment region was taken as an example. However, as the seat part massage mechanism 5 provided in the chair-type massage machine 1 of the present invention, not only one giving a kneading massage, but one giving a tapping massage, a gripping massage, and the like separately or in combination can also be used.

[0019]

Among the members constituting the above-described seat part massage mechanism 5, the base body 11 is made movable in the front/back direction by the above-described seat part guide rails 7, and also a member mountable with the massage body 12. The center of the base body 11 is formed in a downwardly concave shape,

and in the central concave part, damper means 13 (coil spring) adapted to mitigate impact on the massage body 12 from the base body 11 is provided.

[0020]

Also, the base body 11 is provided with travel gears 17 rotatable by an unillustrated drive motor. The travel gears 17 are respectively provided on both of the left and right sides of the base body 11, and configured to mesh with racks 18 provided on the seat part guide rails 7. That is, on the upper sides of the left and right seat part guide rails 7, the racks 18 are formed along the laying direction of the guide rails, and the above-described travel gears 17 are adapted to be able to mesh with the racks 18. Therefore, by meshing the travel gears 17 with the racks 18 on the seat part guide rails 7 and then rotationally driving the travel gears 17, the seat part massage mechanism 5 can be guided along the laying direction of the seat part guide rails 7.

[0021]

Note that the seat part guide rails 7 in the present invention have a characteristic configuration in their shape and placement. On this point, detailed description will be given later.

As illustrated in Fig. 1, the backrest part 3 is a member located at the back of the seat part 2, and formed

in a flat plate shape having thickness so that a user can recline. Inside the backrest part 3, the back part massage mechanism 6 adapted to give a kneading, tapping, or gripping massage over a wide range from the shoulders to the loins through the back of a user, and the back part guide rails 8 enabling the back part massage mechanism 6 to be guided along the tilt direction of the backrest part 3 are provided.

[0022]

Also, the front side of the backrest part 3 is opened forward, and from the opened front side, the back part massage mechanism 6 can protrude forward massage members 19 for back massage.

Further, the above-described back part guide rails 8 are disposed in such a manner as to penetrate inside the backrest part 3 in the up/down direction. In addition, the lower ends of the back part guide rails 8 are at almost the same position in the front/back direction as the back end of the support frame 10 of the seat part 2, and inserted into the support frame 10.

[0023]

In addition, on both of the left and right sides of the backrest part 3 of the above-described chair-type massage machine 1, upper arm massage parts 20 are provided. The upper arm massage parts 20 are disposed protruding

forward from both of the left and right ends of the backrest part 3, and capable of giving a pressure massage using air bags to the upper arms of a user.

The footrest part 4 is disposed at the front of the seat part 2, and capable of massaging the legs of a user with the foot massage mechanism 9 provided therein. Specifically, the footrest part 4 includes: an upper foot massage body 21; and a lower foot massage body 22 disposed below the upper foot massage body 21. The lower foot massage body 22 is adapted to be capable of moving in the up/down direction with respect to the upper foot massage body 21. By constituting the footrest part 4 by the two members whose relative distance can be changed in the up/down direction as described, treatment can be provided to legs of various sizes, and an optimum massage can also be given to users of different builds.

[0024]

Also, the footrest part 4 is opened outward of the footrest part 4, as well as includes leg insertion parts 23 insertable with the legs of a user. The above-described leg insertion parts 23 are formed in a concave shape over both of the upper and lower foot massage bodies 21 and 22 so that a user can insert the legs, and formed respectively on the left side and right side of the footrest part 4. In addition, inside the

respective leg insertion parts 23, the air bags making it possible to give a pressure massage to the legs of a user are disposed, and the footrest part 4 is configured to give a massage to the left and right legs of the user using the air bags. The air bags are supplied with compressed air from a compressor (not illustrated) provided within the support frame 10 of the seat part 2. That is, the above-described air bags and compressor constitute the foot massage mechanism 9 that makes it possible to give a massage based on the air bags to the legs of a user.

[0025]

Meanwhile, the chair-type massage machine 1 of the present embodiment includes mechanisms adapted to store the footrest part 4 below the seat part 2 and to change an attitude. In the following, these mechanisms will be described.

As illustrated in Fig. 3 to Fig. 5, the footrest part 4 is supported rotatably around a rotating shaft 24 facing in the left/right direction. The footrest part 4 is adapted to be capable of switching the attitude thereof between a massage attitude for only giving a massage and a footrest attitude for placing and resting the legs by being rotated around the rotating shaft 24.

[0026]

Specifically, at the upper part on the front side of the support frame 10 of the seat part 2, swing arm members 25 adapted to be swingable around an axis facing in the left/right direction with respect to the support frame 10 are attached. The swing arm members 25 are long plate-like members that are curved in such a manner as to form a substantially L-shaped appearance as viewed from the left/right side, and respectively attached to the left end and right end of the support frame 10. In addition, end parts (front ends) of the swing arm members 25 on the opposite side to the side connected to the support frame 10 are fixed to side support members 26 of the footrest part 4 using screws or the like.

[0027]

The side support members 26 are members that are respectively disposed on both of the left and right sides of the footrest part 4 and rotatably support the footrest part 4, and in the present embodiment, formed of plate-like members having a substantially D-shaped appearance as viewed from the left/right side. On the back end sides of the side support members 26, the swing arm members 25 are connected, and on the front end sides of the side support members 26, the rotating shaft 24 supporting the footrest part 4 rotatably around an axis facing in the left/right direction is provided.

[0028]

That is, the footrest part 4 illustrated in Fig. 3 is in an attitude in which the leg insertion parts 23 (surface provided with the leg insertion parts 23) open upward and slightly forward. In addition, lock members and the like adapted to lock the footrest part 4 from rotating with respect to the side support members 26 are provided, and the footrest part 4 can be held in the attitude (massage attitude) in which the leg insertion parts 23 face upward. In such a massage attitude, since the leg insertion parts 23 face upward for ease of inserting the legs, a massage can be given to the legs of a user.

[0029]

When changing the footrest part 4 in the massage attitude illustrated in Fig. 3 into the footrest attitude, first, the locking by the above-described lock members is released. In doing so, the footrest part 4 can be rotated around the rotating shaft 24 whose shaft center faces in the left/right direction. When rotating the footrest part 4 in the massage attitude illustrated in Fig. 3 by approximately 180 ° around the rotating shaft 24, as illustrated in Fig. 5, the attitude of the footrest part 4 can be changed to the attitude (footrest attitude) in which the leg insertion parts 23 face downward.

[0030]

In the footrest attitude as illustrated in Fig. 5, the legs (calves or soles) can be placed on a footrest surface 27 on the back side of the leg insertion parts 23 to rest the legs. The footrest surface 27 on the back side of the leg insertion parts 23 is formed flat for ease of placing the legs, and also formed using a cushioning member or the like so as to prevent the placed legs from getting tired.

Further, when returning the attitude of the footrest part 4 in the footrest attitude to the massage attitude, it is only necessary to perform further rotation around the rotating shaft 24 by approximately 180 ° or perform rotation in an opposite direction by approximately 180 °. The above-description relates to the mechanism adapted to change the attitude of the footrest part 4.

[0031]

On the other hand, the above-described mechanism adapted to store the footrest part 4 is configured to include: an actuator 28 disposed on the support frame 10; and a connecting shaft 29 connecting the actuator 28 and the swing arm members 25. Specifically, the actuator 28 is a member adapted to be elastic in the front/back direction using a driving force of an electric

motor, or the like, and disposed on the lower side of the support frame 10. The actuator 28 is attached to the support frame 10 at the back end side, and adapted to be elastic forward. Also, the connecting shaft 29 is a rod-shaped member extending at an angle from the back end side connected to the actuator 28 forward and upward, and the front end side of the connecting shaft 29 is connected on the middle sides of the above-described swing arm members 25 in their longer directions swingably around an axis facing in the left/right direction.

[0032]

That is, when storing below the seat part 2 the footrest part 4 advanced forward as illustrated in Fig. 5, the actuator 28 is contracted using the electric motor such that the fore end thereof moves backward. In doing so, the connecting shaft 29 connected to the actuator 28 moves backward, and the front end sides of the swing arm members 25 swing backward and downward around the back end sides (base end sides) connected to the support frame 10. As a result, as illustrated in Fig. 6, the footrest part 4 can be stored below the seat part 2.

[0033]

On the other hand, when advancing forward the footrest part 4 stored below the seat part 2, the electric motor is rotated in an opposite direction to that at the

time of storage. In doing so, the fore end of the actuator 28 extends forward, and the connecting shaft 29 connected to the actuator 28 moves forward, so that the front end sides of the swing arm members 25 can be swung forward and upward around the base end sides (back end sides), and as illustrated in Fig. 5, the footrest part 4 can be advanced in such a manner as to raise the footrest part 4 forward of the seat part 2.

[0034]

In addition, when storing the footrest part 4, in order to be able to surely store the footrest part 4 below the seat part 2, it is necessary to change the attitude of the footrest part 4 to an attitude (storage attitude) different from the massage attitude or the footrest attitude. That is, when storing the footrest part 4, as illustrated in Fig. 6, the attitude of the footrest part 4 is changed to the attitude (storage attitude) in which the surface provided with the leg insertion parts 23 faces upward (lower part of the seat surface). In such a storage attitude, the attitude of the footrest part 4 fits to a space (storage space) that is below the seat part 2 and whose height decreases toward the back, and therefore the footrest part 4 can be stored without any difficulty. The footrest part 4 brought into the storage attitude in this manner is stored below the seat part

2 using the actuator 28.

[0035]

Meanwhile, the chair-type massage machine 1 of the present invention is one capable of storing the above-described footrest part 4 in the lower inner side of the seat part 2, and characterized in that the seat part guide rails 7 are disposed in positions to prevent interference with the stored footrest part 4, and along the seat part guide rails 7, the seat part massage mechanism 5 moves to a position to prevent interference with the footrest part 4.

[0036]

Specifically, the chair-type massage machine 1 of the present invention employs two means in order to suppress the seat part guide rails 7 from interfering with the footrest part 4 in the storage state.

The first means is one adapted to form the shape of the seat part guide rails 7 as a curved shape lowering backward and dispose the seat part guide rails 7 so that the back ends of the seat part guide rails 7 point to the back end part of the footrest part 4 in the storage state. In doing so, the seat part guide rails 7 follow the outer shape of the footrest part 4 to prevent the seat part guide rails 7 and the seat part massage mechanism 5 from interfering with the footrest part 4

in the storage state.

[0037]

Further, the second means is one adapted to form the leg insertion parts 23 in a shape enabling parts of the seat part guide rails 7 to be inserted into the leg insertion parts 23 of the above-described footrest part 4. Specifically, in parts of the leg insertion parts 23 corresponding to the front ends of the feet of a user, opening parts 30 opened forward are formed, and in a state where the attitude of the footrest part 4 is changed so that the surface provided with the leg insertion parts 23 and the opening parts 30 face upward (lower part of the seat surface) and then the seat part guide rails 7 are inserted into the leg insertion parts 23 and into the opening parts 30, the footrest part 4 can be stored in the lower inner side of the seat part 2.

[0038]

First, the arrangement of the seat part guide rails 7 as the above-described first means will be described.

As illustrated in Fig. 7, the footrest part 4 stored has an outer shape whose height decreases toward the back, and the upper surface of the footrest part 4 is one tilting downward toward the back.

With respect to such an outer shape of the footrest part 4, the seat part guide rails 7 provided in the

chair-type massage machine 1 of the present embodiment extend in such a manner as to point to the back end part of the footrest part 4 in the storage state. That is, the seat part guide rails 7 point to the back end part of the footrest part 4 in the storage state, as well as is formed in a curved shape lowering backward, and is formed in the shape following the outer shape of the footrest part 4 in the storage state.

[0039]

Specifically, as illustrated in Fig. 7, the upper side of the footrest part 4 stored is formed in a shape linearly tilting downward from the front toward the back. Therefore, the seat part guide rails 7 corresponding to the upper side of the footrest part 4, i.e., the seat part guide rails 7 in a range (front end side) from the front side rail ends to approximately 2/3 of the total length are also formed in a shape linearly tilting downward from the front toward the back, and disposed following the outer shape of the upper side of the footrest part 4 stored.

[0040]

Also, the back side of the footrest part 4 stored is one steeply rising along the up/down direction. Therefore, the seat part guide rails 7 corresponding to the back side of the footrest part 4, i.e., the seat part

guide rails 7 in a range (back end side) from the back side rail ends to approximately 1/3 of the total length are formed in a curved shape that steeply falls downward from above and is convex downward in an arc-like manner, and are formed following the outer shape of the back side of the footrest part 4 stored.

[0041]

Further, the seat part guide rails 7 posterior to the arc-like curved parts (back ends of the seat part guide rails 7) terminate at positions separated further backward from the back end of the footrest part 4 in the storage state, and adapted to point to a space part 31 slightly posterior to the back end of the footrest part 4 (space part 31 indicated by Reference Sign 31 in Fig. 7).

Meanwhile, the positional relationship between the seat part guide rails 7 and the seat part 2 is as follows.

[0042]

That is, the front ends of the seat part guide rails 7 are located in positions slightly separated backward from the front part of the support frame 10 of the seat part 2, and located on the lower side of the seat surface of the seat part 2. The seat part guide rails 7 consist of linear parts extending almost linearly and subsequent curved parts, and the linear parts from the front parts

to the center parts of the guide rails 7 are placed obliquely downward and backward while substantially following the seat surface of the seat part 2. The curved parts corresponding to the back parts of the seat part guide rails 7 are placed in positioned corresponding to the back part of the seat part 2, and further below the lower ends of the back part guide rails 8, the curved parts (in particular, the back ends of the curved parts) of the seat part guide rails 7 are located.

[0043]

In other words, it can also be said that in the chair-type massage machine 1 of the present embodiment, the space part 31 is formed between the back end part of the footrest part 4 in the state of being stored in the lower inner side of the seat part 2 and the lower end parts of the back part guide rails 8, and the above-described seat part guide rails 7 are disposed in such a manner as to point to the space part 31 (toward the space part 31).

The space part 31 represents a space located further backward of the back end part of the footrest part 4 in the storage state and also located further downward of the lower end parts of the back part guide rails 8, and is one having the largest space among ones securable inside or around the seat part 2 as a space capable of

storing the seat part massage mechanism 5. That is, the seat part guide rails 7 in the present embodiment are ones adapted to guide the seat part massage mechanism 5 into the space part 31 that is a space capable of storing the seat part massage mechanism 5.

[0044]

Next, the above-described second means will be described.

For example, above the footrest part 4 in the storage attitude, almost no space is available, and a space capable of placing the seat part guide rails 7 may not be sufficiently securable. In such a case, it is difficult to place the seat part guide rails 7 along the outer shape of the footrest part 4.

For this reason, in the chair-type massage machine 1 of the present embodiment, the above-described leg insertion parts 23 are formed with the opening parts 30 whose parts corresponding to the front ends of the feet of a user are opened forward, and the footrest part 4 is stored on the inner side of the seat part 2 such that the surface provided with the leg insertion parts 23 of the footrest part 4 faces upward and the opening parts 30 face upward (lower part of the seat surface). This is because, in doing so, the seat part guide rails 7 can be inserted into the leg insertion parts 23 and into the

opening parts 30, and even when a sufficient space is not available above the footrest part 4 in the storage attitude, the seat part guide rails 7 can be placed along the outer shape of the footrest part 4.

[0045]

Specifically, the above-described leg insertion parts 23 are formed on the left and right of the footrest part 4 corresponding to the left and right legs of a user. In addition, the above-described left and right guide rails 7 are ones disposed on the center sides in the width direction (left/right direction) of the leg insertion parts 23 so as to be able to be inserted into the left and right leg insertion parts 23. That is, the left seat part guide rail 7 is disposed in the center in the width direction of the left leg insertion part 23, and the right seat part guide rail 7 is disposed in the center in the width direction of the right leg insertion part 23.

[0046]

Also, the above-described opening parts 30 are parts corresponding to the front ends of the feet of a user, i.e., the toes, and parts opened forward. That is, in a footrest part of a typical chair-type massage machine, in consideration of keeping the toes warm, and the like, leg insertion parts to be inserted with the feet are often not opened by providing a part corresponding to the front

ends of the feet with a cover or extending a casing of the footrest part. On the other hand, in the leg insertion parts 23 provided in the chair-type massage machine 1 of the present embodiment, the parts corresponding to the front ends of the feet are provided with the opening parts 30 opened forward as indicated by Reference sing 30 in Fig. 7, and consideration is given so that even when inserting the seat part guide rails 7 into the leg insertion parts 23, the seat part guide rails 7 do not interfere with the cover or casing of the footrest part 4. Providing such opening parts 30 makes it possible to insert the seat part guide rails 7 to the far sides of the leg insertion parts 23 (in the illustrated example, by approximately up to 1/2 of the total length of the leg insertion parts 23 formed in the lower massage body 22), and the seat part guide rails 7 can be further suppressed from interfering with the footrest part 4 in the storage state.

[0047]

In the above-described chair-type massage machine 1 of the present embodiment, the seat part massage mechanism 5 can be surely stored in the space part 31 preventing positional interference with any of the other mechanisms provided in the chair-type massage machine 1, i.e., in the space part 31 provided at the back of

the footrest part 4 stored and below the back part guide rails 8.

Also, the seat part guide rails 7 points to the back end part of the footrest part 4 in the state of being stored in the lower inner side of the seat part 2 (to be exact, in the space part 31), and are also formed in the curved shape lowering backward, and therefore the seat part massage mechanism 5 and the seat part guide rails 7 can be prevented from positionally interfering with the footrest part 4 in the storage state.

[0048]

Therefore, despite employing the seat part massage mechanism 5 capable of mechanically treating a treatment region of the buttocks, the seat part massage mechanism 5 can be surely stored in a position separately from the seat surface (in the space part 31 on the lower back side of the seat part 2).

Note that the embodiment disclosed this time is an exemplification in all aspects and should not be construed to be restrictive. In particular, matters not explicitly disclosed in the embodiment disclosed this time, such as operating conditions or process requirements, various parameters, and the sizes, weights, and volumes of components, are not departing from a range generally implemented by a person skilled in the art,

and values easily anticipatable by a person skilled in the art are adopted.

[Reference Signs List]

[0049]

- 1 Chair-type massage machine
- 2 Seat part
- 3 Backrest part
- 4 Footrest part
- 5 Seat part massage mechanism
- 6 Back part massage mechanism
- 7 Seat part guide rail
- 8 Back part guide rail
- 9 Foot massage mechanism
- 10 Support frame
- 11 Base body
- 12 Massage body of seat part massage mechanism
- 13 Damper means
- 14 Drive part of massage body (drive motor)
- 14a Drive shaft of drive part
- 15 Rotating shaft
- 16 massage member
- 17 Travel gear
- 18 Rack
- 19 Massage member for back massage
- 20 Upper arm massage part

- 21 Upper foot massage body
- 22 Lower foot massage body
- 23 Leg insertion part
- 24 Rotating shaft
- 25 Swing arm member
- 26 Side support member
- 27 Footrest surface
- 28 Actuator
- 29 Connecting shaft
- 30 Opening part
- 31 Space part

CLAIMS

1. A chair-type massage machine comprising: a seat part; a seat part massage mechanism adapted to treat a buttock of a user sitting on the seat part; a seat part guide rail adapted to guide the seat part massage mechanism in a front/back direction; and a footrest part adapted to treat a leg of a user, wherein

the seat part is configured to be capable of storing the footrest part in a lower inner side of the seat part,

the seat part guide rail points to a back end part of the footrest part in a state of being stored in the lower inner side of the seat part and is formed in a shape that is curved lowering backward, and

back end side of the seat part guide rails is formed in a curved shape that steeply falls downward from above and is convex downward in an arc-like manner, and are formed following the outer shape of the back side of the footrest part stored.

2. The chair-type massage machine according to claim 1, wherein

at a back of the seat part, a backrest part on which a user is to recline, a back part massage mechanism adapted to treat a back of a user reclining on the backrest part, and a back part guide rail adapted to guide the back part massage mechanism in an up/down direction are provided,

between the back end part of the footrest part in the state of being stored in the lower inner side of the seat part and a lower end part of the back part guide rail, a space is formed, and

the seat part guide rail is disposed pointing to the space part.

3. The chair-type massage machine according to claim 1, wherein

a front surface of the footrest part is provided with a leg insertion part that is opened outward and insertable with a leg of a user, and the leg insertion part is formed with an opening part whose part corresponding to a front end of a foot of a user is opened forward,

the footrest part is adapted to be capable of being stored on an inner side of the seat part such that the surface provided with the leg insertion part faces upward and the opening part faces upward, and

the footrest part is adapted to be capable of being stored in the lower inner side of the seat part with the seat part guide rail inserted into an inner side of the leg insertion part and/or into the opening part.